



## THE 1995 NATIONAL CENSUS OF PINK-FOOTED AND GREYLAG GEESE IN BRITAIN

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### SUMMARY

The 36th consecutive census of Pink-footed and Greylag Geese in Britain took place in autumn and early winter 1995. Two discrete counts were undertaken, recording maxima of 200,343 Pink-footed Geese in October and 82,722 Greylag Geese in November.

The Pink-footed Goose total represents a 24% decrease compared with 1994, whilst the Greylag Goose population estimate has decreased by 4% compared to the previous year. Both species had a below average breeding season in 1994 with 13.8% and 11.5% young for Pink-footed and Greylag Geese respectively. Mean brood size was 2.4 young/pair for both species.

The October counts for Pink-footed Geese were carried out under good conditions and no major sites were missed, however the low estimate, compared with 1994, suggests that some flocks may have been missed. Some night feeding was reported during the October count weekend and this may have affected the population estimate. Pink-footed Geese arrived slightly earlier in 1995 compared with recent autumns, with peak numbers counted during the last week of September at many sites in east-central Scotland. This coincided with an early arrival in Lancashire with c.25,000 Pink-footed Geese counted at Martin Mere on 30 September. This early dispersal may also have been partly responsible for some of the undercounting.

The November counts for Greylag Geese are believed to be accurate due to good coverage, co-ordination and counting conditions. The regional distribution of the birds and the importance of key sites are discussed.

Annual hunting statistics have recently become available from Iceland. In 1995, an estimated 35,000 Greylag and 8,000 Pink-footed Geese were reported shot in Iceland. The impact of this level of hunting, especially for Greylag Geese, is discussed.

### INTRODUCTION AND METHODS

The 36th consecutive national census of Pink-footed Geese *Anser brachyrhynchus* and Greylag Geese *Anser anser* in Britain was conducted in autumn and early winter 1995. The methods followed previous years with, as in 1990 to 1994, two discrete counts being made, one in October when Pink-footed Geese tend to be more concentrated at fewer sites, and one in November when it is hoped that Greylag Geese have completed their migration from Iceland. The majority of observations were conducted by volunteers, usually made as dawn or dusk counts at

known roost sites, although in a very few areas, where the locations of roost sites were poorly known or where roost use was known to be infrequent, daytime counts of feeding birds were made.

Assessments of the number of young present in autumn flocks and the average brood size per family were made by experienced counters at a number of sites in Scotland during the period 1 October to 15 November.

This report provides a brief overview of the results of this census; more detailed information on individual regions or sites is available from WWT on request.

## WEATHER CONDITIONS AND COVERAGE

Count conditions on 14/15 October were generally good; although described by a few counters as 'murky' on 14 October, conditions were better the following day. The weather on 25 November was generally good although rain and wind affected counting at some sites on 26 November. Rain affected counting at *Loch of Strathbeg*. There was a full moon on 19 October and 18 November and this may have affected counts on both months. There were, however, only a few reports of night feeding where birds may have roosted on fields rather than flying to lochs. At *Meikle Loch*, a bright half moon was reported on 15 October and Pink-footed Geese were recorded arriving at the loch at first light.

A total of 147 sites was covered by the census representing a slight increase (7%) on the coverage in 1994 including, once again, all of the important sites (see '*principal concentrations*' below).

Ten sites were counted in November but not in October (*Loch Inch* (Stranraer), *Carse of Stirling*, *Flanders Moss*, *Glenalmond Estate*, *Middle Loch of Haddo Country Park*, *Loch Freuchie*, *Loch Rutton*, *Lochfoot*, *Long Loch*, *Threave* and sites in the *Upper Tay*) and three sites were covered in October but not in November: *Castle Loch* and *Hightae Loch* (Lochmaben) and *Stormont Loch*. These tended to be sites that either irregularly hold geese or only support small numbers; thus, an omission in either month is thought not to have affected the overall population estimates greatly.

Some supplementary September and early October counts showed an early arrival of Pink-footed Geese and quick dispersal from those arrival points. For example, *Dupplin Loch* supported 35,000 on 28 September, *Carsebreck and Rhynd Lochs* held 13,500 on 30 September, *Loch Leven* held 17,900 on the same date, and *West Water Reservoir* held 31,500 on 1 October. Coincidentally, a record 25,000 Pink-footed Geese were counted at *Martin Mere* on 30 September. All four Scottish sites held far fewer Pink-footed Geese at the time of the October census (7,500, 5,900, 11,200 and 17,400, respectively). Thus, between the last days of September and the second weekend in October numbers at these four sites had fallen from 98,000 to 42,000. Hopefully, however, these early arrivals were located and counted at other locations.

Due to the late date of the November count, it is thought that the roost counts *per se* failed to provide an accurate assessment of the number of geese using that area (I. Brockway pers. comm.). Many Greylag Geese flocks had fragmented by late November with some groups remaining in fields over night. The dawn count of 110 Greylag Geese at *Loch Eye* on 26 November seemed low and a check for feeding birds in fields next to the roost found 900 geese present.

In summary, the weather was reasonable for goose counting on at least one day of each of the count weekends in October and November and, together with good coverage, this assisted in obtaining accurate counts from all key sites for both species. Some flocks of Pink-footed Geese

however, may have been missed in October.

## RESULTS

### TOTAL NUMBERS

#### Pink-footed Geese

The count of 200,343 Pink-footed Geese in Britain in October 1995 (Table 1) represented a 24% decrease compared with October 1994 (c.260,000). The count for November (181,813) was, however, almost the same as the corresponding total counted in November 1994 (183,000) (Figure 1). In October 1995, there were few suggestions that birds had been missed, and in view of the large numbers of sites covered and good weather, it is surprising that the October population estimate was so low.

The 1995 counts reveal a reduction between October and November - an apparent loss of c.18,000 birds (9.1%). No major Pinkfoot roosts were missed in November, thus reinforcing the suggestion by Newton *et al.* (1990) that a more accurate estimate of the Pink-footed Geese population can be obtained in October, before birds start to disperse more widely within Britain (Figures 2a & 2b).

The apparent low October count and the difference of c.18,000 birds between the two months is remarkable however, since the difference over the same period in 1994 amounted to c.77,000 birds (30% of the 1994 population estimate).

#### Greylag Geese

The count of 82,722 Greylag Geese in Britain in November 1995 is the lowest population estimate since 1984 (64,000) and represents a decline of 4% compared with 1994. Between 1985 and 1994 the population estimate was c.100,000 but included three major 'dips' in the counts: in 1989 (83,500); in 1991 (88,000) and in 1994 (86,000). In 1989, the estimate was considered too low and was largely attributed to poor weather during the census. However, in both 1991 and 1994, counting conditions were generally good and the suggestion was made that there had indeed been a reduction, or stabilisation, in the overall population.

There were several sites where counts of Greylag Geese in 1995 may not have referred to Icelandic birds (See Discussion in Mitchell & Cranswick 1993). However, these inaccuracies do not affect the November population estimate greatly. In some cases, the numbers of feral or re-introduced Greylag Geese is small but these flocks can be augmented by winter visitors, thus confusing the picture. For example, many of the Greylag Geese roosting at *Loch Inch* (Stranraer) are known to breed locally, yet these are joined in the autumn months by Icelandic breeding birds.



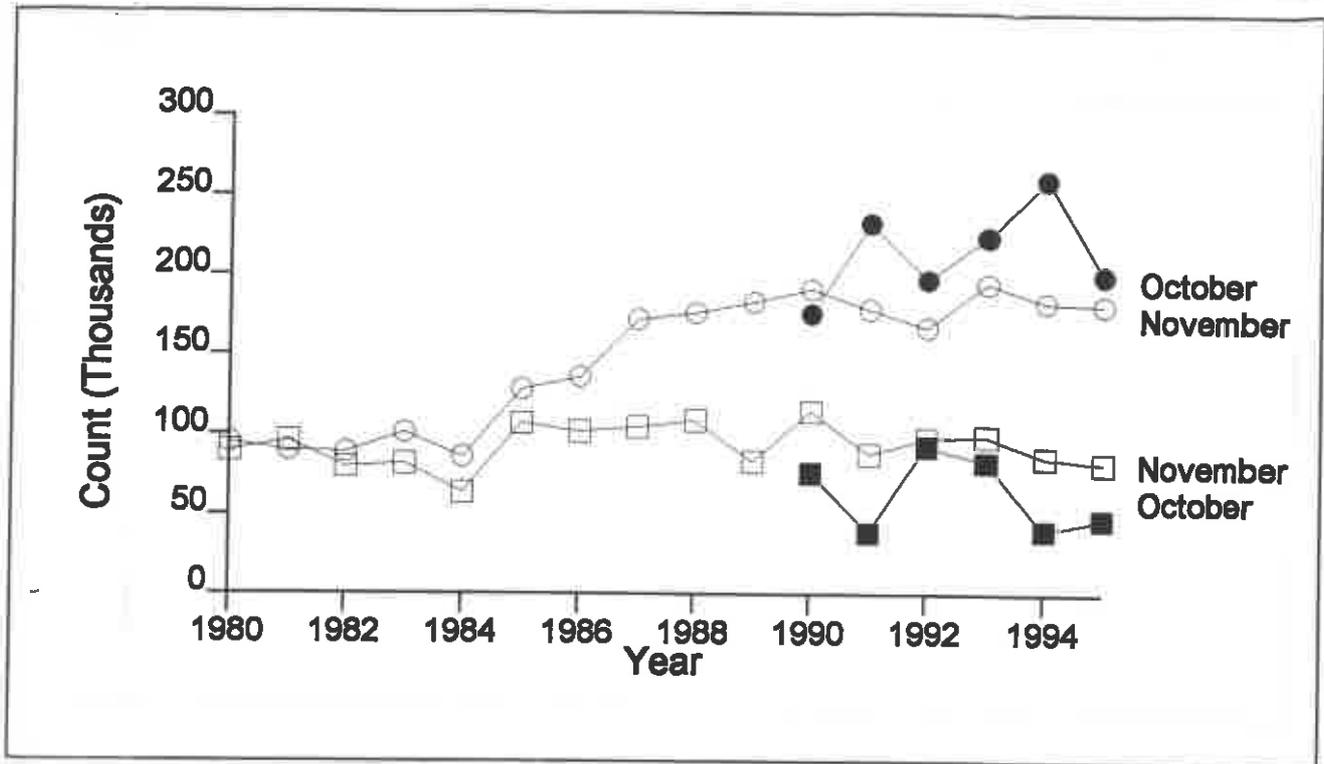


Figure 1. The numbers of Pink-footed Geese (circles) and Greylag Geese (squares) recorded by WWT counts in November (open symbols) and, since 1990, in October (closed symbols, 1980-1995).

## REGIONAL DISTRIBUTION WITHIN BRITAIN

The distribution of Pink-footed and Greylag Geese by region/district in October and November 1995 is shown in Table 1. Table 2 shows the gross regional distribution of geese. Table 3 shows the principal resorts of both species and Figures 2 and 3 show the distribution of counts during autumn 1995.

### Pink-footed Geese

In October, the majority of birds (32.5%) were recorded in east-central Scotland (Tayside, Central and Fife). Just over a quarter was found in north-east Scotland (eastern Grampian) and about a fifth of the total was in south-east Scotland/north-east England (Lothians, Borders and Northumberland). The proportions are very similar to those recorded in 1994, albeit with a reduction in the proportion recorded in east-central Scotland in 1995. By November, there was, as expected, a movement south with, for example, increases in east England (Norfolk). Pink-footed Geese had arrived in Lancashire earlier than in some previous years: c.25,000 were counted there in the last week of September. Note, too, the rapid movement of birds through north-east Scotland: a decrease from 48,500 birds in October to 24,656 by November.

Figure 2b. The distribution of Pink-footed Geese in November 1995

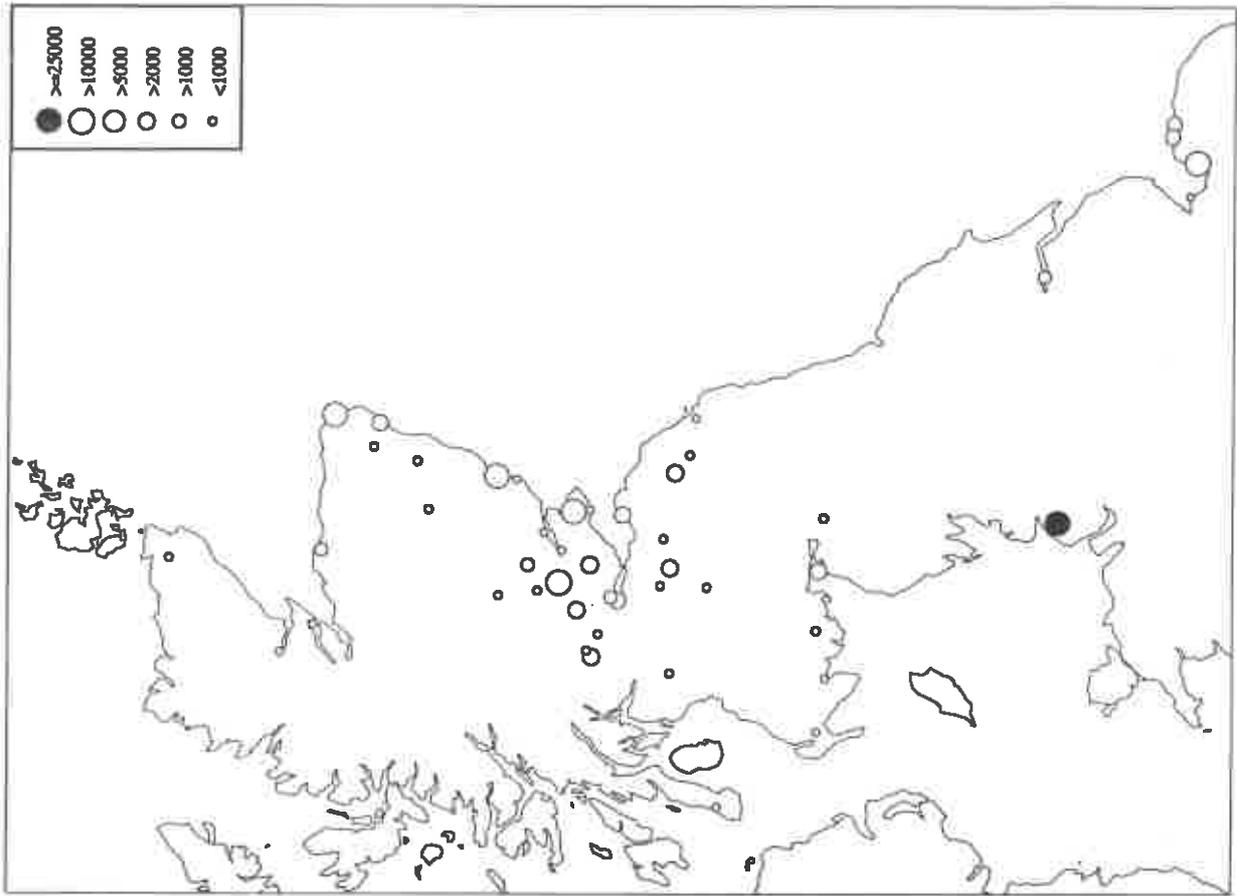


Figure 2a. The distribution of Pink-footed Geese in October 1995

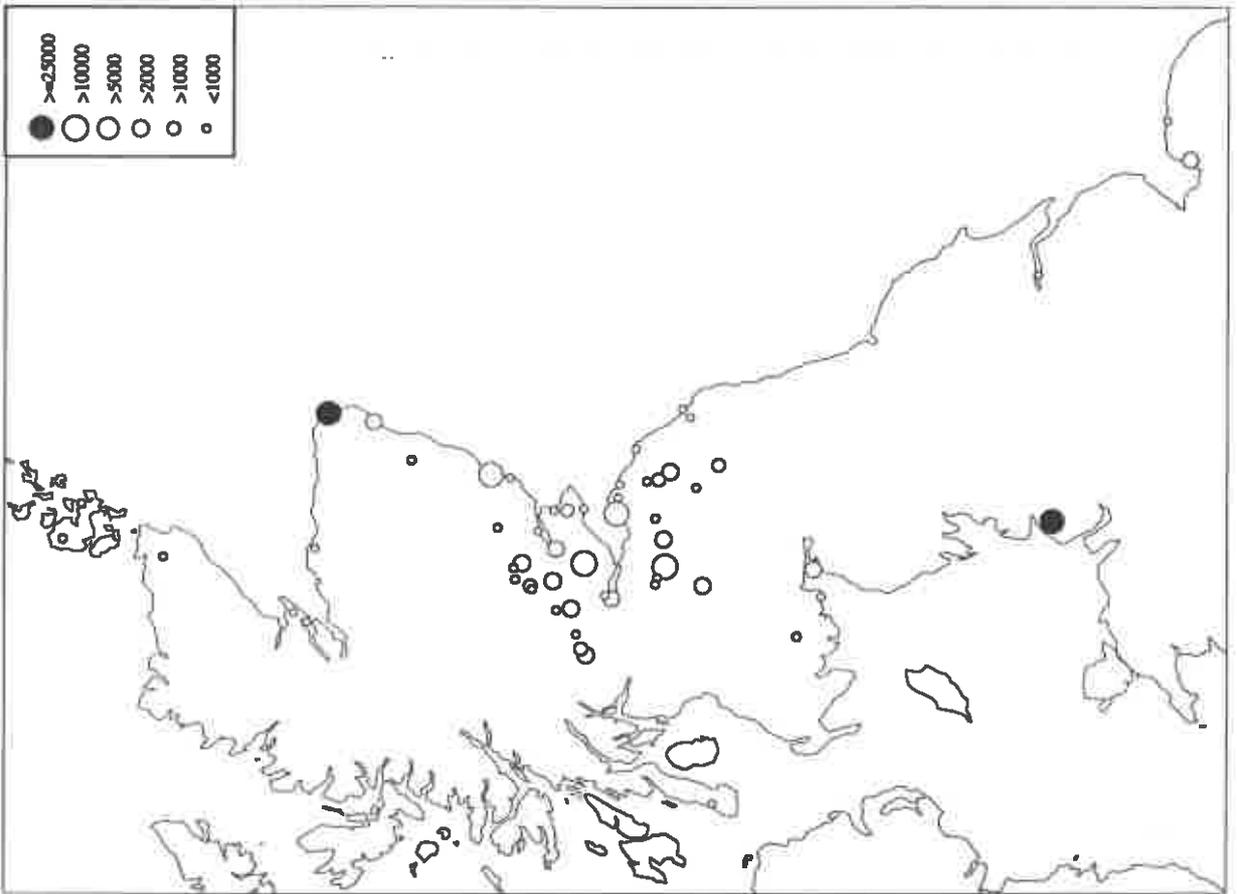


Figure 3b. The distribution of Greylag Geese in November 1995

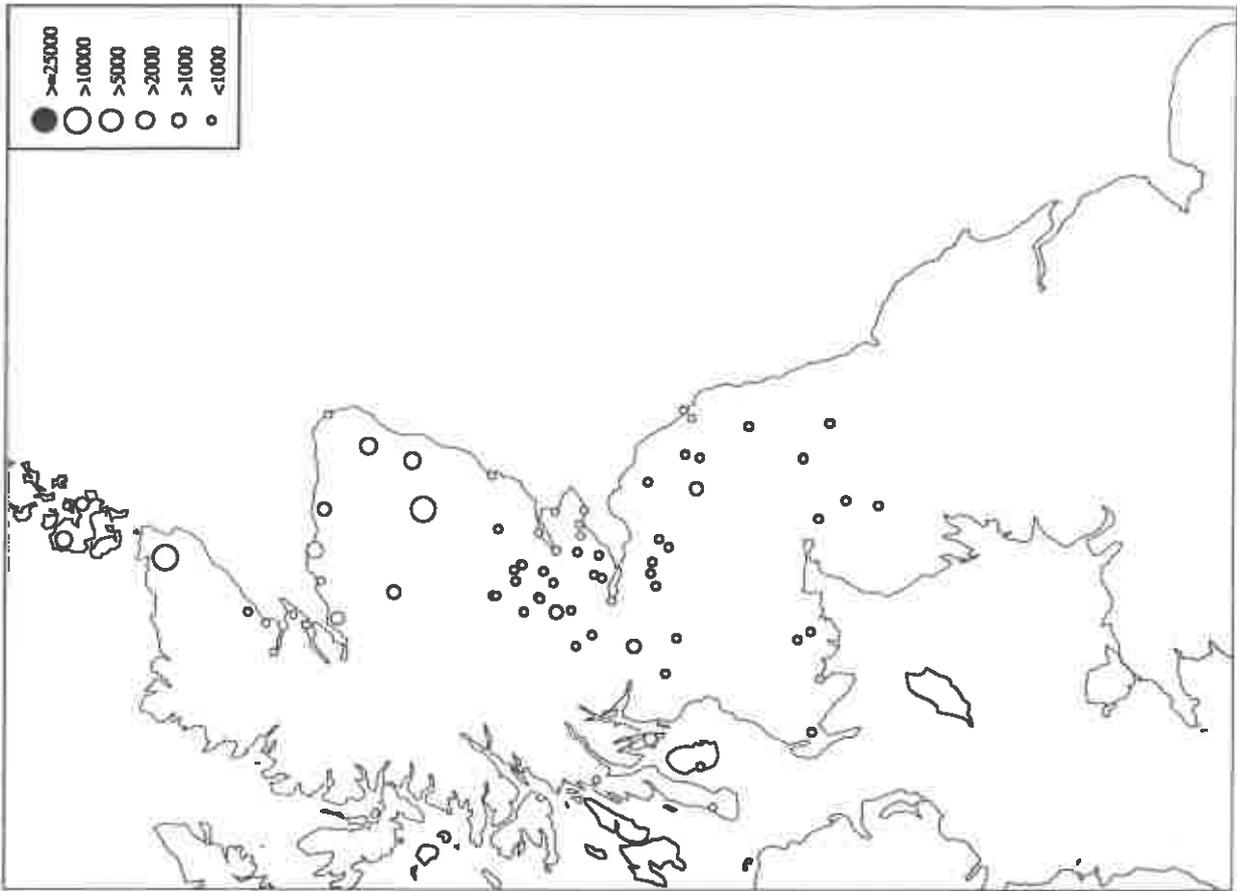
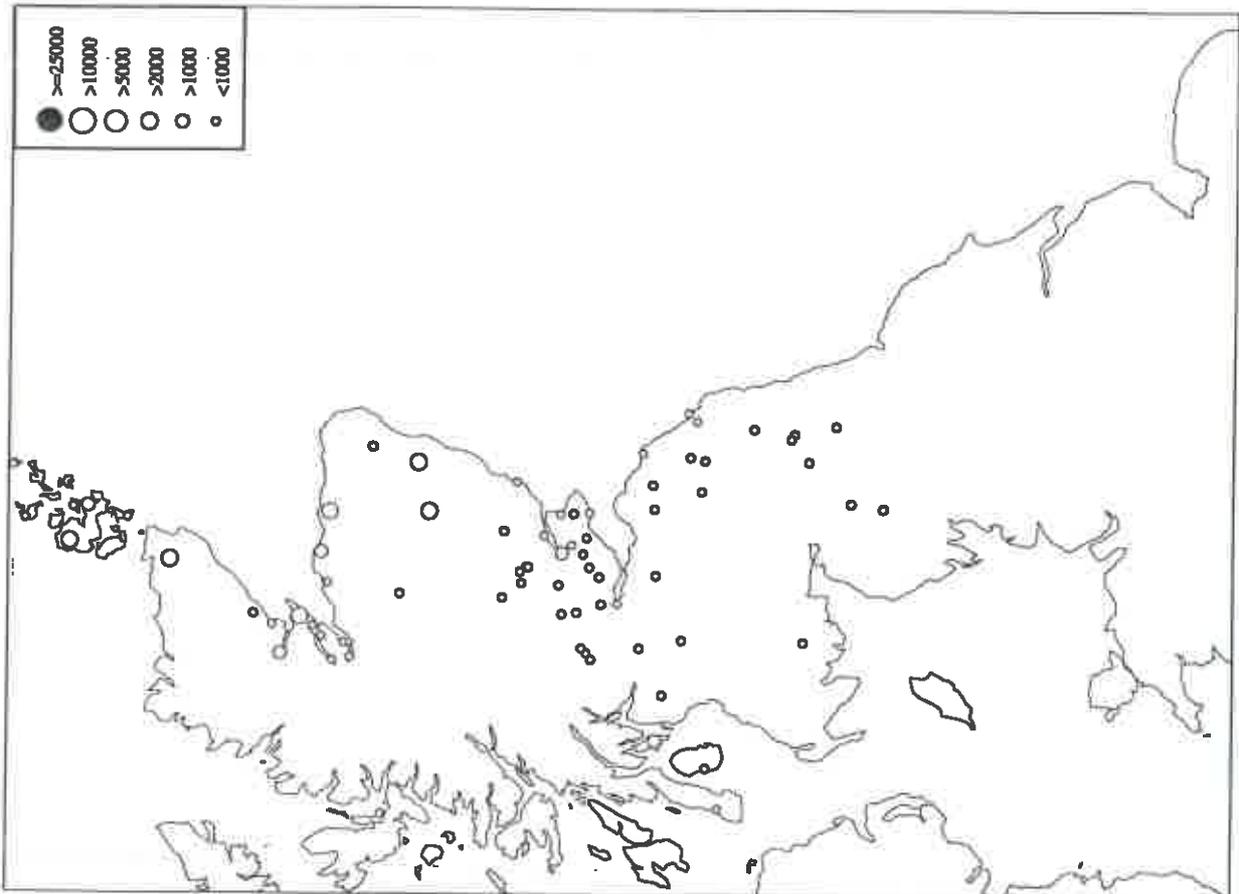


Figure 3a. The distribution of Greylag Geese in October 1995



## Greylag Geese

In 1995, the October and November counts revealed the later arrival of Greylag Geese to their wintering quarters with a 73% increase between the two months. Notable concentrations in October 1994 were found in north Scotland (principally Highland Region), which accounted for 28.1% of the population with few birds reported from more southerly areas. By November, the groups were a little more dispersed, north Scotland accounting for 31.5% of the population whilst north-east Scotland supported 42.1% with marked increases in numbers occurring in Caithness, Moray and Kincardine & Deeside. In other areas, the counts for October and November were similar.

**Table 2. Gross regional distribution of Pink-footed and Greylag Geese in Britain in October and November 1994, expressed as a percentage of the maximum count for each species.**

Area *	Pink-footed Goose		Greylag Goose	
	Oct	Nov	Oct	Nov
North Scotland	0.3	0.1	28.1	31.5
North-east Scotland	28.1	18.5	17.9	42.1
East-central Scotland	32.5	30.7	5.2	12.5
South-east Scotland/North-east England	20.0	7.5	3.5	7.1
South-west Scotland/North-west England	4.3	3.2	2.9	6.8
West England	12.5	14.4	0	0
East England	2.3	16.5	0	0
Total	100.0	90.8	51.6	100.0

- \* areas are defined as follows:  
 North Scotland: Shetland, Orkney, Western Isles, Highland  
 North-east Scotland: Grampian  
 East-central Scotland: Tayside, Central, Fife  
 South-east Scotland/North-east England: Lothian, Borders, Northumberland  
 South-west Scotland/North-west England: Strathclyde, Dumfries & Galloway, Cumbria  
 West England: Lancashire, Merseyside  
 East England: Humberside, Lincolnshire, Norfolk

## PRINCIPAL CONCENTRATIONS

### Pink-footed Geese

Over 54% of the October total was found at only six sites: *Loch of Strathbeg* (48,500); roosts in *south-west Lancashire* (25,000); *Montrose Basin* (18,500); *West Water Reservoir* (17,400); *Aberlady Bay* (11,320) and *Loch Leven* (11,200) (see Table 3). *Loch of Strathbeg* alone accounted for 24% of the October total (in October 1994 it accounted for 20%). Overall, six sites held more than 10,000 Pink-footed Geese and a further 17 sites held over 1,000; thus only 32 sites accounted for 99% of the October count. In total, 51 sites held more than 10 Pink-footed Geese.

**Table 3. Principal Pink-footed and Greylag Goose resorts counted in Autumn 1995.** Columns show all counts from sites holding  $\geq 1\%$  of the 1995 population estimate for each species (A,E), the site count as a proportion of census totals (B,F), and the site count as a proportion of average winter maxima from the previous five autumns (C,G). Five year peak mean counts (D) are calculated using all monthly counts (WeBS data) and *ad hoc.* counts, thus these may appear larger than counts recorded in the autumn.

**PINK-FOOTED GEESE**

October Census Total	200,343			
	A	B	C	D
Loch of Strathbeg	48,500	24.2	129.0	37,640
South West Lancs/Merseyside	25,000	12.5	98.6	25,612
Montrose Basin	18,500	9.2	66.3	27,882
West Water Reservoir	17,400	8.7	58.4	29,767
Aberlady Bay	11,320	5.7	85.4	13,249
Loch Leven	11,200	5.6	70.0	15,984
Meikle Loch, Slains	7,600	3.8	60.4	12,574
Dupplin Loch	7,500	3.7	16.8	44,700
Tay Estuary	5,917	2.9	-	-
Carsebreck Lochs/Strathallan	5,900	2.9	60.0	9,754
Upper Cowgill Reservoir	4,560	2.3	101.7	4,484
Solway Estuary	3,939	1.9	25.7	15,332
Hule Moss	3,610	1.8	24.6	14,667
Snettisham	3,500	1.7	12.5	27,974
Gladhouse Reservoir	3,290	1.6	107.8	3,050
Skinflats	3,070	1.5	-	-
River Tay: Bloody Inches	2,740	1.4	-	-
Lake of Mentieth	2,169	1.1	-	-

**GREYLAG GEESE**

November census Total	82,722			
	E	F	G	D
Dinnet Lochs	19,931	24.0	85.6	23,268
Caithness	12,376	14.9	246.6	5,017
Orkney (East & West)	6,583	8.0	137.3	4,796
Loch Spynie	5,500	6.6	85.9	6,396
Haddo Country Park	4,900	5.9	95.7	5,120
Loch of Skene	2,300	2.8	20.9	10,969
Loch Garten	1,987	2.4	149.3	1,331
Drummond Pond	1,680	2.0	57.9	2,898
Lower Bogrotten	1,520	1.8	46.2	3,290
Isle of Bute	1,417	1.7	59.6	2,379
Bemersyde Loch	1,400	1.7	-	-
Loch Flemington	1,300	1.6	-	-
Gadloch (Lenzie Loch)	1,100	1.3	-	-
Inner Dornoch Firth	978	1.2	76.5	1,278
Loch Fleet	960	1.2	-	-
Derwent Reservoir	950	1.1	-	-
Loch Eye	900	1.1	6.8	13,330
Long Loch	850	1.0	-	-

A similar pattern was reported a month later with 60% of the November count found at only six sites: *South-west Lancashire* (28,850); *Loch of Strathbeg*, (24,656); *Snettisham* (17,975); *Montrose Basin*, (15,200); *Cameron Reservoir* (11,260) and *Dupplin Loch* (10,300). In all, Pink-footed Geese were recorded at 70 sites, either in October or November (Figures 2a and 2b), five more sites than in 1994.

Among other autumn counts received, notable maxima away from the census dates included: c.35,000 at *Dupplin Loch* on 28 September; 31,500 at *West Water Reservoir* on 1 October; 25,000 at *Meikle Loch* on 17 October; 25,000 at *Martin Mere* on 30 September; 18,200 at *Hule Moss* on 29 September; 17,900 at *Loch Leven* on 30 September and 13,500 at *Carsebreck and Rhynd Lochs* on 30 September.

The early arrival of Pink-footed Geese in Norfolk was reflected in the build up of numbers at the three principal roosts (*Snettisham*, *Scot Head* and *Holkham*). After the October census (4,280), numbers steadily increased to 32,370 by 20 November (a week before the November census). The peak count during 1995/96 was 54,760 on 12 January 1996.

Table 3 shows that, apart from *Loch of Strathbeg*, *South-west Lancashire*, *Upper Cowgill Reservoir* and *Gladhouse Reservoir* the principal sites generally held fewer geese than the five year peak mean counts. *Dupplin Loch* in particular held fewer geese than in recent years.

### Greylag Geese

In November, 59% of the total was found at only five sites: *Dinnet Lochs* (19,931); roosts in *Caithness* (12,376); sites in *Orkney* (6,583); *Loch Spynie* (5,500) and *Haddo Country Park*, (4,900). Overall, 14 sites held more than 1,000 birds and a further 57 sites held between ten and 1,000 birds demonstrating the dispersed nature of this species when compared to Pink-footed Geese. In all, Greylag Geese were recorded at 94 sites in either October or November (Figures 3a and 3b) - a figure similar to that recorded in 1994 (95 sites).

In addition to the census counts, the following counts were recorded: 36,525 (23 October) and 27,620 (24 October) at *Dinnet Lochs* (note, however, that the census count recorded only 19,931 on 26 November) and 12,300 at *Loch of Skene* on 8 November. The count on 23 October at *Dinnet Lochs* represents the largest ever recorded of this species at a site in Britain.

Table 3 shows that, apart from *Caithness*, *Orkney* and *Loch Garten* the principal sites generally held fewer geese than the five year peak mean counts. *Loch Eye* in particular held fewer geese than in recent years.

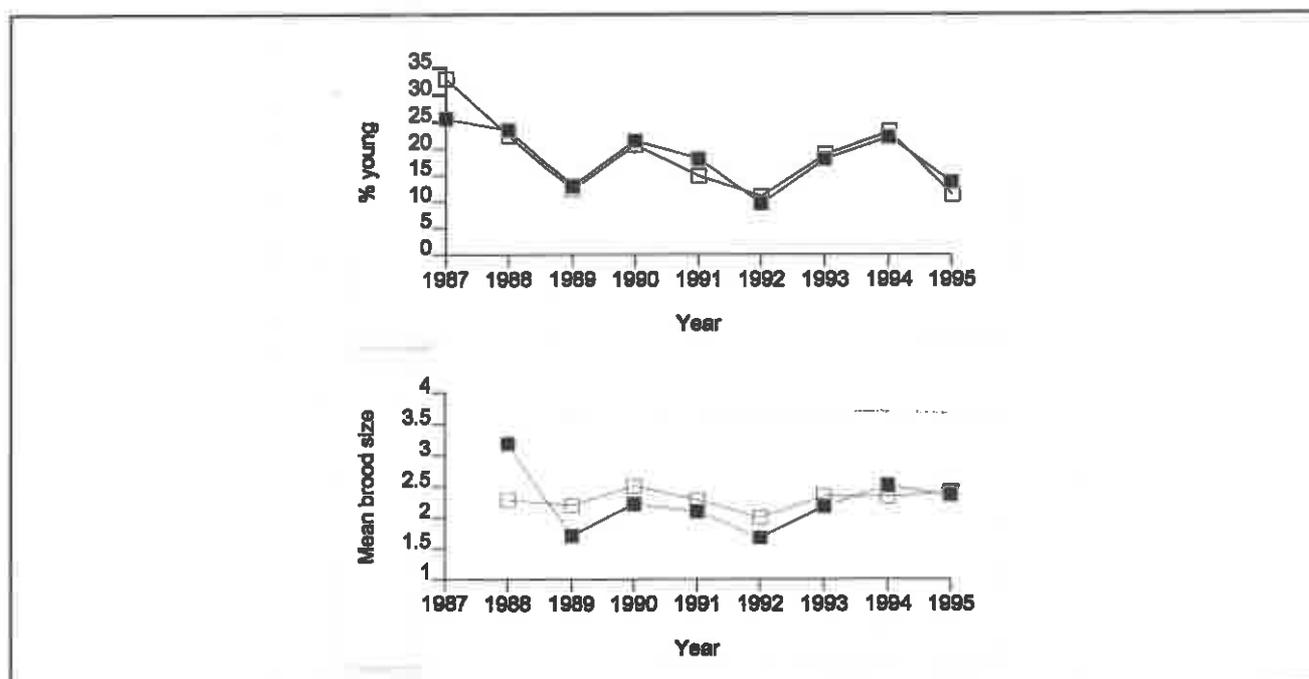
## BREEDING SUCCESS

### Pink-footed Geese

A total of 11,270 Pink-footed Geese was aged at various localities in Scotland during the last two weeks of October and the first two weeks of November. Breeding success was low with 13.8% young observed in sample flocks and mean brood size (2.37) was just below average (Table 4, Figure 4).

**Table 4. The proportion of young and average brood size in Pink-footed and Greylag Goose flocks in autumn of 1995. Data collection period restricted to the last weeks of October and the first two weeks of November. (Regions are defined in Table 2)**

Species	Region	Total aged	% Young	no. of broods	Brood size
Pink-footed Goose	North Scotland	1,700	11.8	34	2.47
	North-east Scotland	2,800	10.6	42	2.45
	East-central Scotland	4,700	13.2	83	2.48
	South-east Scotland/North-east England	600	16.8	-	-
	South-west Scotland/North-west England	1,232	22.7	45	2.11
	East England	238	24.8	9	1.78
	<b>Total</b>		<b>11,270</b>	<b>13.8%</b>	<b>213</b>
Greylag Goose	North Scotland	2,035	12.1	36	2.44
	North-east Scotland	1,700	10.9	34	2.32
	East-central Scotland	1,107	10.6	31	2.35
	South-west Scotland/North-west England	366	13.4	6	3.00
	<b>Total</b>		<b>5,208</b>	<b>11.5%</b>	<b>107</b>



**Figure 4. The proportion of young and average brood size for Pink-footed Geese (closed symbols) and Greylag Geese (open symbols), recorded by WWT censuses, 1987 to 1995.**

### Greylag Geese

Fewer data were received for Greylag Geese than Pink-footed Geese and these were from Scotland during the same period. Greylag breeding success was also low, with 11.5% young observed in sample flocks and the mean brood size (2.41) was just below average (Table 4, Figure 4). Greylag Geese in 1995 produced a slightly lower proportion of young than Pink-footed Geese.

Additional data were received for both species from flock scans made both before and after this sampling period. These data have not been included in the analysis above in order to maintain continuity with previous years, however the data collected will form part of a larger analysis investigating brood size changes during the winter months and into the spring. For example, sampling as early as the last week of September and the first two weeks of October provided estimates of over 20% young in Pink-footed Geese.

Regional variation in the proportion of young recorded persists, notably demonstrated by an increase in the proportion of young Pink-footed Geese in flocks checked further south. No such latitudinal increase was recorded in Greylag Geese; there appears to be a larger proportion of young in more northerly flocks (as was the case in 1994), however, sample sizes from southern sites for both species were too small to permit meaningful analysis of these trends.

### DISCUSSION

The October and November counts, made over single weekends and in reasonable goose counting conditions, should have provided accurate population estimates for both Pink-footed and Greylag Geese. However, the Pink-footed Goose population estimate has fallen by c.60,000 birds since 1994 (a 23% decline), whilst the Greylag Goose population estimate has also fallen, but only by c.3,000 geese (a 3.5% decline). This is in contrast to known hunting levels recently recorded in Iceland (c.35,000 Greylag and c.8,000 Pinkfeet killed in 1995; see below) and raises more questions than answers. Thus, we are faced with a conundrum: assuming the counts to be a good estimate of the actual numbers present, and the Icelandic bag data to be accurate, how can the Pink-footed Goose numbers fall so markedly, and faced with such high numbers being shot each year, how can the Greylag Goose numbers remain so high?

Summer 1995 was a poor breeding season for both species of grey goose but this was not reflected in other Arctic breeding grey geese that wintered in Britain in 1995/96: European White-fronted Geese (23%) and Greenland White-fronted Geese (19.7%) both appear to have had a good breeding year.

### Pink-footed Geese

The main arrivals of Pink-footed Geese in south-east Scotland in 1995 were on 24 and 28 September with generally unfavourable winds for the next two weeks (M.V. Bell pers. comm.). This co-incided with an early arrival of record numbers of Pink-footed Geese at Martin Mere (Lancashire). The weather system on 24 September; however, changed very rapidly and it is possible that migrating birds were swept over the North Sea as winds veered from NW to SW. Mortality on the autumn migration may be important in some years, although extremely difficult to quantify. One colour-ringed Pink-footed Goose which had been seen at Martin Mere in the previous winter was found dead near Stavanger, south-west Norway in late September. Flocks of geese were also seen struggling south-west up the Tay Estuary towards Strathearn on 25 September onwards. It is possible that adverse weather conditions at the most important migration time could have caused an unusually high number of deaths through exhaustion.

The Pink-footed Geese arriving in south-east Scotland quickly moved on after a very clean harvest and this is reflected in the early arrival of geese in Lancashire, Lothians and Borders and, later in Norfolk. There was also an apparent high turnover of birds on the Solway Estuary in early October (F.Mawby *in litt.*). Yet despite the rapid turnover of Pink-footed Geese sites in Scotland and early arrival at more southerly haunts there is no evidence that the counts 'missed' a significant number of birds. Assuming a conservative (and very old) estimate of 10% mortality per annum this is more than compensated for by the 13% young recorded in autumn flocks. Thus, the population estimate for 1995 might have been expected to be nearer c.250,000. If the population estimate for 1995 (c.200,000) is accurate then the annual mortality between 1994 and 1995 would have been as high as 34%.

In 1991, the Pink-footed Goose population estimate was 233,000 and after a poor breeding season in 1992 (9.7% young) the 1992 population estimate fell, by 15%, to c.200,000. Thus, a similar and substantial decrease in numbers, coupled with relatively low breeding success, has occurred recently. The decrease in 1992 (c.33,000 birds) was large, and again, due to good coverage the estimate was considered reasonably accurate. The 1995 counts fit this pattern yet the decrease (c.66,000 birds) does seem remarkably large.

### **Greylag Geese**

For Greylag Geese, the October count comprised 58% of the November population estimate and shows the value of counting in both months. Figure 1 shows the Greylag Goose population estimates for the period 1980-95. These trends show a population that has levelled at c.100,000 from the mid-1980s and is now slowly declining.

The suggestion, based on the low 1991 and 1994 counts, that the number of Greylag Geese wintering in Britain was not increasing, perhaps suffering from intensive hunting pressure at certain sites, may now be borne out by the counts. Provisional recovery data from the ringing efforts of Highland Ringing Group (in collaboration with WWT) suggested that a greater proportion of ringed Greylag Geese were shot in autumn 1994 in Iceland, than of ringed Pink-footed Geese.

### **Shooting bag statistics**

In 1994, the Icelandic Government introduced legislation requiring that all persons issued with a shotgun licence must complete (anonymously) a bag record card. The first years data reveals that, in 1995, c.35,000 Greylag Geese and c.8,000 Pink-footed Geese were shot in Iceland (Arnór Sigfusson pers. comm.). Unfortunately there are no comparable bag statistics for grey geese from Britain. There is no legal requirement for any wildfowler in Britain to record what species or how many individual birds he/she shoots. The British Association of Shooting and Conservation (BASC) are sub-contracted by WWT to undertake an anonymous survey to try to ascertain the extent and distribution of goose shooting. Various attempts were made requesting bag information (Reynolds & Harradine 1994). In 1993/94, 4% of 5,000 circulated survey forms ('wildfowl shooting survey') were returned to BASC; in another request, 42 responses were generated from a mail-shot of an estimated 110,000 readers of 'Shooting & Conservation' magazine. Thus, neither survey provided accurate estimates of the numbers of Pink-footed and Greylag Geese shot in Britain.

Faced with accurate bag statistics from Iceland and, as far as is possible, accurate population counts each autumn, a lack of knowledge of the numbers of grey geese shot in Britain each winter severely impairs any attempts to understand, describe or predict population dynamics and levels. Examining the counts and (Icelandic) bag data alone however, presents a curious situation where up to c.35,000 Greylag Geese are shot each year yet the total population responds by a very slow decline. This suggests that the population of Greylag Geese may only be just supporting such a high level of hunting; the coming seasons will tell if this is truly sustainable. However, the trend for the last 15 years is clear: the population of Icelandic Greylag Geese wintering in Britain is not increasing.

### **1996 mid-winter and spring grey goose counts**

Winter 1995/96 saw the continuation and completion of a study investigating the distribution of grey geese during the winter months and into the spring. Many of the counters involved in the counting of roost sites in October and November helped with these additional counts. A report on the second season (1994/95) was finished in summer 1995 and is available from WWT. The report on the third winter will be completed during summer 1996 and copies will be sent to counters in September. For further details please contact CM at Slimbridge.

## **COLOUR-RINGED GEESE**

Both Pink-footed and Greylag Geese continue to be marked with coloured rings. Most of the Pink-footed Geese caught in Britain have been marked at *Martin Mere* (Lancashire), *Loch Leven* (Kinross) and on the *north Solway coast* (Dumfriesshire). Greylag Geese have been marked at *Loch Eye* (Inverness-shire) and a small number at *Loch of Skene* (Aberdeenshire). In July 1996, over 400 Pink-footed and over 100 Greylag Geese were also ringed in north-central Iceland. Extra effort is being employed this year in order to locate marked grey geese on the winter quarters. Goose counters can contribute valuable sightings, and I would especially ask counters to look out for marked geese (and other wildfowl). Full ringing and sighting details will be forwarded in return.

The colours and codes used to date are:

### **Pink-footed Geese:**

Grey neck collars (2 or 3 characters)

White leg rings (3 letters)

Orange leg rings (3 letters)

### **Greylag Geese:**

Grey neck collars (2 or 3 characters)

White leg rings (2 letters)

Orange leg rings (2 letters)

Green leg rings (2 letters)

Please send sightings of marked Greylag Geese to: Bob Swann, 14 St Vincent Road, Tain, Ross-shire.

and marked Pink-footed Geese (or any other wildfowl) to: CM at Slimbridge

## **AUTUMN COUNTS 1996**

The dates for the 1996 annual national census of Pink-footed and Greylag Geese have been provisionally set for:

**12-13 October and 9-10 November.**

## ACKNOWLEDGEMENTS

The censuses of Pink-footed and Greylag Geese form part of the long-term goose monitoring programme in the U.K. which receives financial support from the Joint Nature Conservation Committee and the Department of the Environment for Northern Ireland. Their support is gratefully acknowledged.

Thanks also to John Bowler, Peter Cranswick and Jeff Kirby for comments on a draft of this report.

A large number of dedicated goose enthusiasts have again made this census possible. Enormous thanks to all these people and to the area co-ordinators for their efforts, advice and comments on the grey goose situation in their areas. These include (with apologies for any omissions or mis-spellings):

G Adam, G Allen, D Alton, R Anderson, C Badenoch, J Ballantyne, A Barclay, M Bayne, M Bell *et al.*, W Bews, N Bielby, S Blythe, C Booth, I Brockway *et al.*, A Brown, D Bryant, J Buroow, M Callan, E Cameron, M Carrier, G Catley, I Chisholm, P Collin, M Cook, D Creasey, N Crowther, P Davey, H Dott, A Duncan Jones, K Fairclough, D Ferguson, V Flanders, D Forshaw *et al.*, D Fotheringham, J France, K Futter, T Gillies, R Goater, P Gordon, A Gordon, S Hacker, L Hatton, R Hawley, W Hay, R D Hearn, F Henderson, P Hollindrake, I Hopkins, B Hughes, J Huntley, C Hurley, H Huxley, T Jacobs, B Kibbands, A Lauder, D Law, S Laybourne *et al.*, J Lough, T Malin, W Mattingley, F Mawby *et al.*, D McAllister, R McCutcheon, J McCutcheon, A McDonald, E McGregor, P McPhail, G McShane, R Mearns, E Meek, M Moss, R Murray, P Norman, J Osborne, A Panter, S Parkin, J Parkin, D Patterson, I Patterson, I Pire, R Procter, RAFOS, M Ramage, Dunfermline Ranger Service, Fife Ranger Service, B Redhead, A Robertson, M Ross, N Rossiter, Lochwinnoch RSPB, A Sandeman, S Sankey, A Scobbie, A Shepherd, M Shepherd, S Shimeld, M Shimeld, R Sidaway, F Slack, G Smith, J Smith, South Solway Wildfowlers' Association, North Solway Wildfowlers' Association, K Spalding, P Speak, S Stansfield, L Steele, F Symonds, M Taylor, R Thaxton, I Thomson, J Threlfall, M Tulloch, B Turner, V Underwood, V Underwood, S Warbrick, J Warren, M Watson, T Wilson, R Youngman and B Zonfrillo.

Additional age assessments were provided by: Malcolm Ogilvie, David Patterson, Richard Hearn, Chris Tomlinson, Ivan Brockway and Alan Lauder.

## REFERENCES

Mitchell, C. & Cranswick, P.A. 1994. *The 1993 National census of Pink-footed and Greylag Geese in Britain*. WWT report to JNCC. Slimbridge, 13pp.

Newton, S.F., Bell, M.V., Brown, A.W. & Murray, R.D. 1990. Pink-footed Goose numbers at arrival sites in eastern and central Scotland. *Scottish Birds* 16:35-36.

Reynolds, N. & Harradine, J. 1994. *Grey Goose Shooting Kill and Duck recruitment*. BASC report to WWT, Rossett, 53pp.

15 August 1996